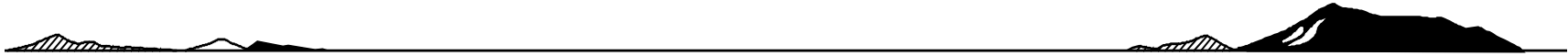


**Waste Acceptance,
Storage and
Transportation Project**

**Yucca
Mountain Site
Characterization
Office**

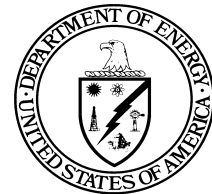


Introduction and Overview

**Presented to:
Potential Proposers**

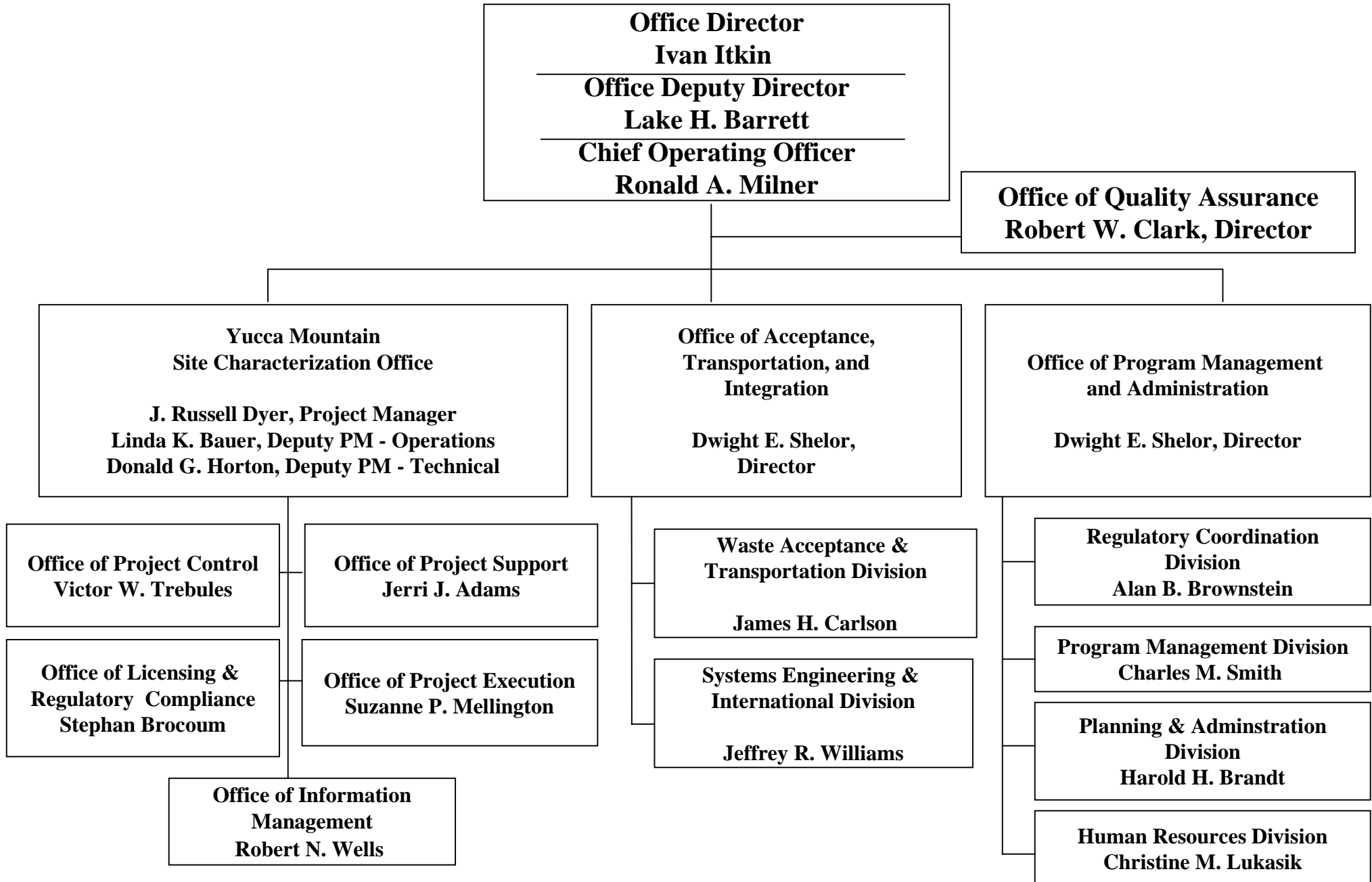
**Presented by:
Linda K. Bauer
Deputy Project Manager - Operations
U.S. Department of Energy**

**Las Vegas, NV
February 17, 2000**



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

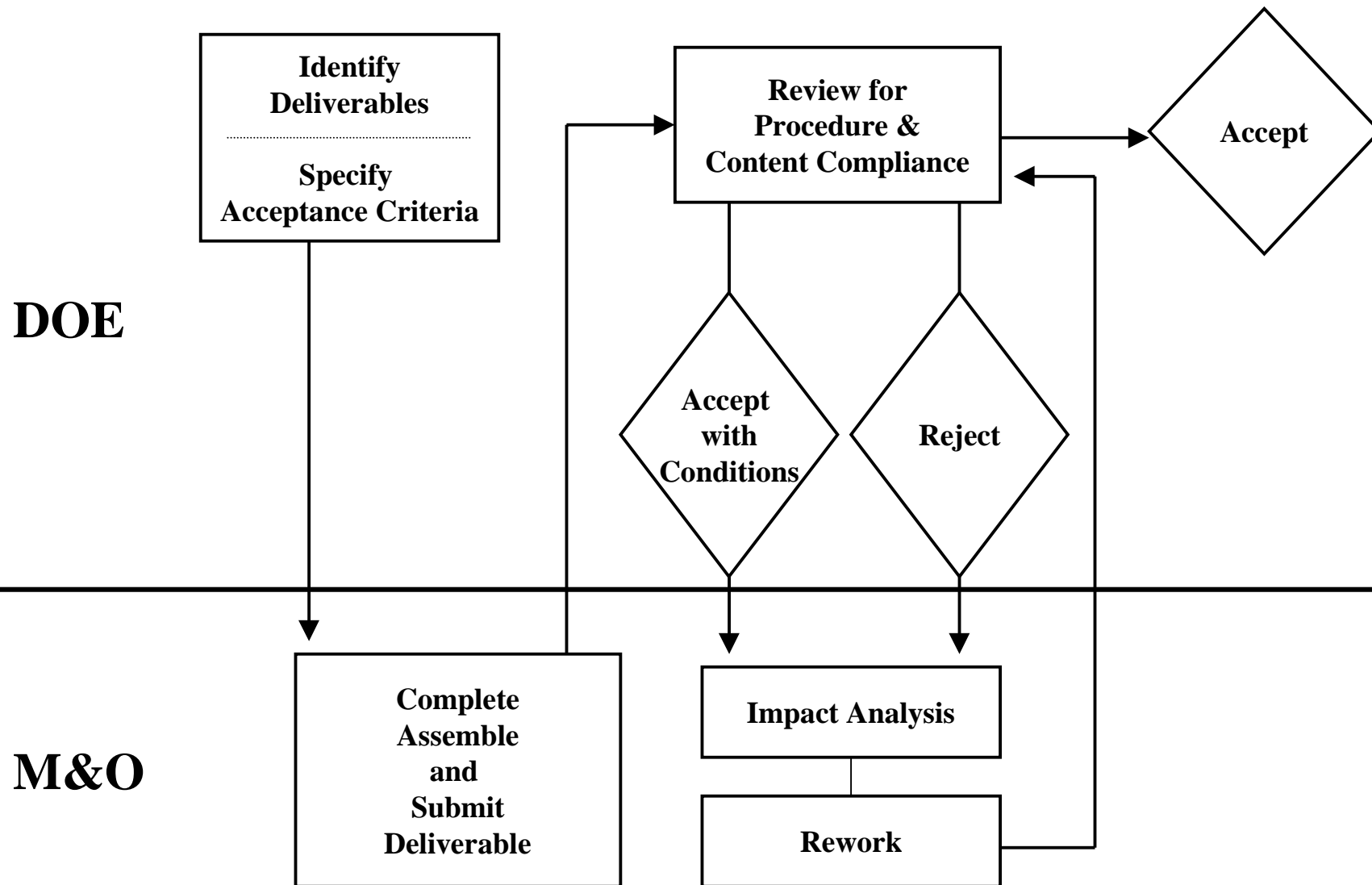
U.S. Department of Energy
Office of Civilian Radioactive Waste Management



TWO-STEP PLANNING PROCESS

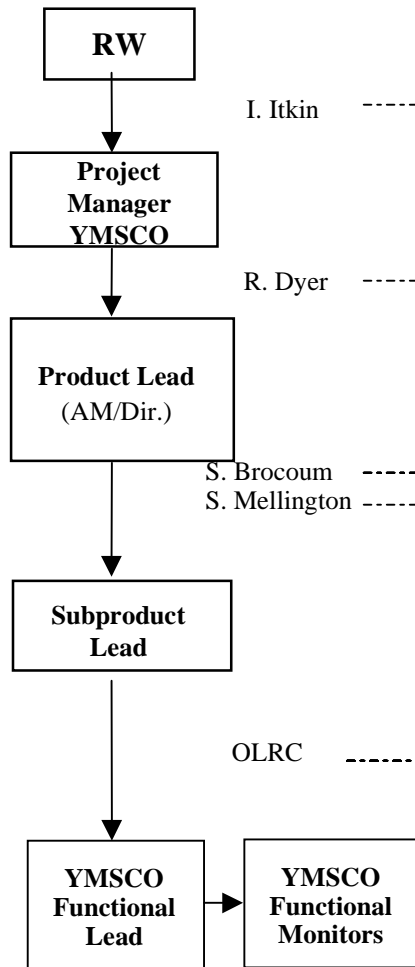
DOE Issues Guidance	March 31, 2000
Contractor Submits Initial Plan	May 23, 2000
DOE Issues Supplemental Guidance	June 6, 2000
Contractor Submits Final Plan	July 26, 2000
Final Review by DOE Completed	Aug-Sept. 2000
Target Baseline in Place	October 1, 2000

DELIVERABLE ACCEPTANCE PROCESS

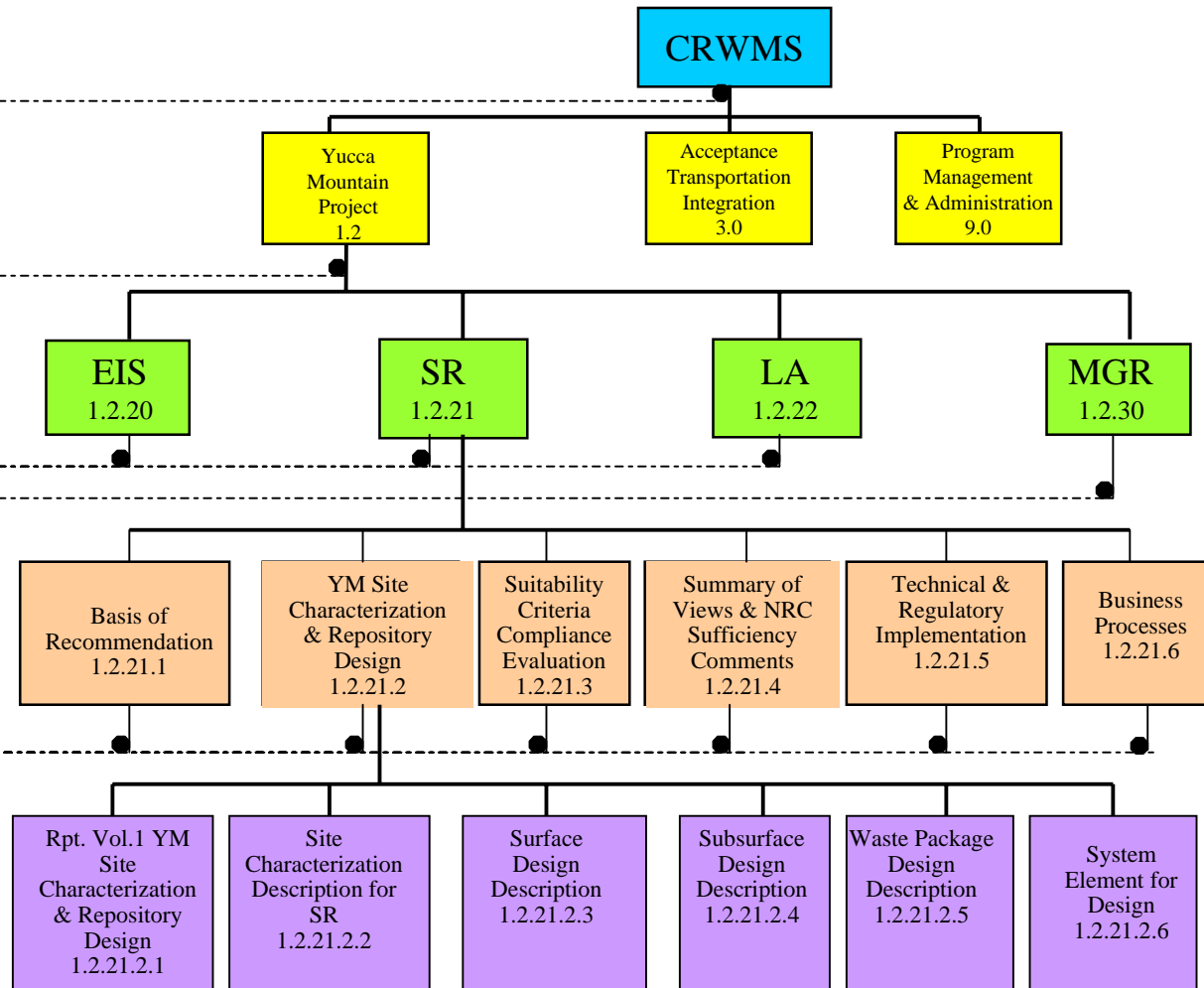


Product Hierarchy

Product Organization



Program Work Breakdown Structure (WBS)



WBS Level

1

2

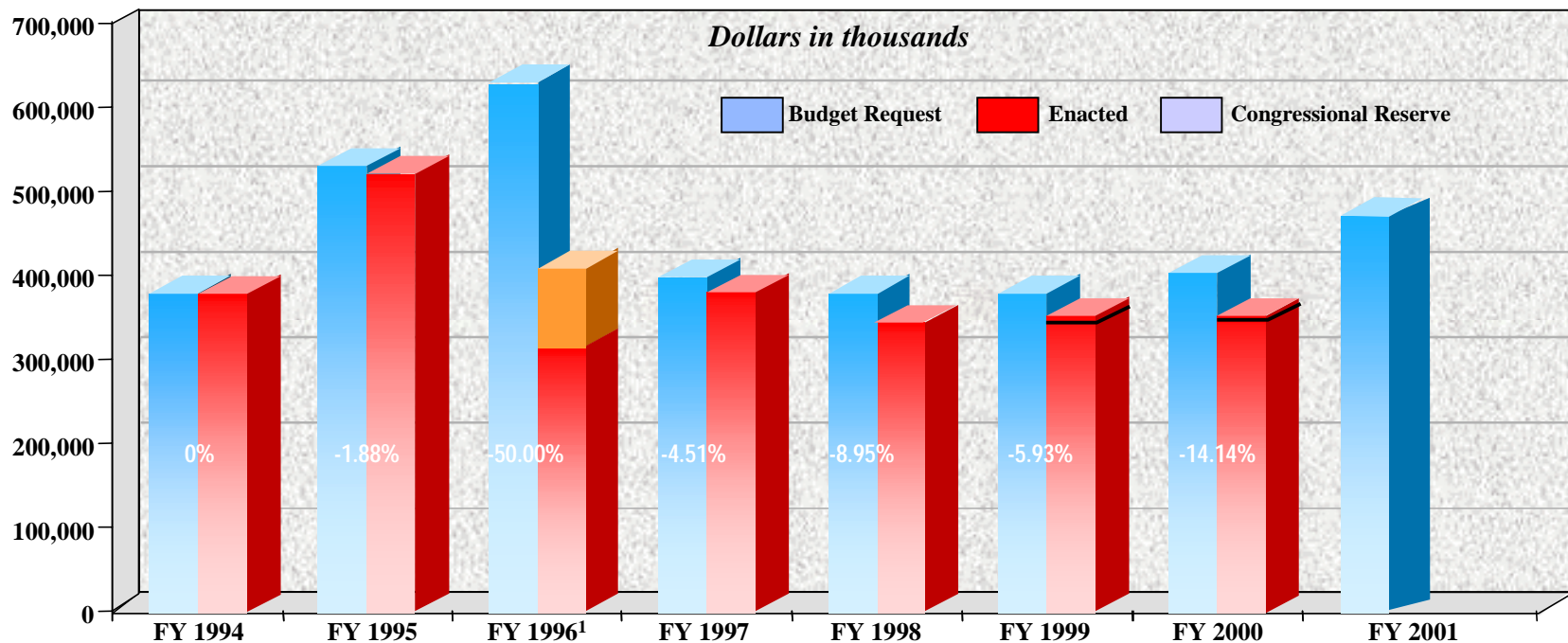
3

4

5

Contractor WBS

FY 1994 - 2001 Budget History and Status

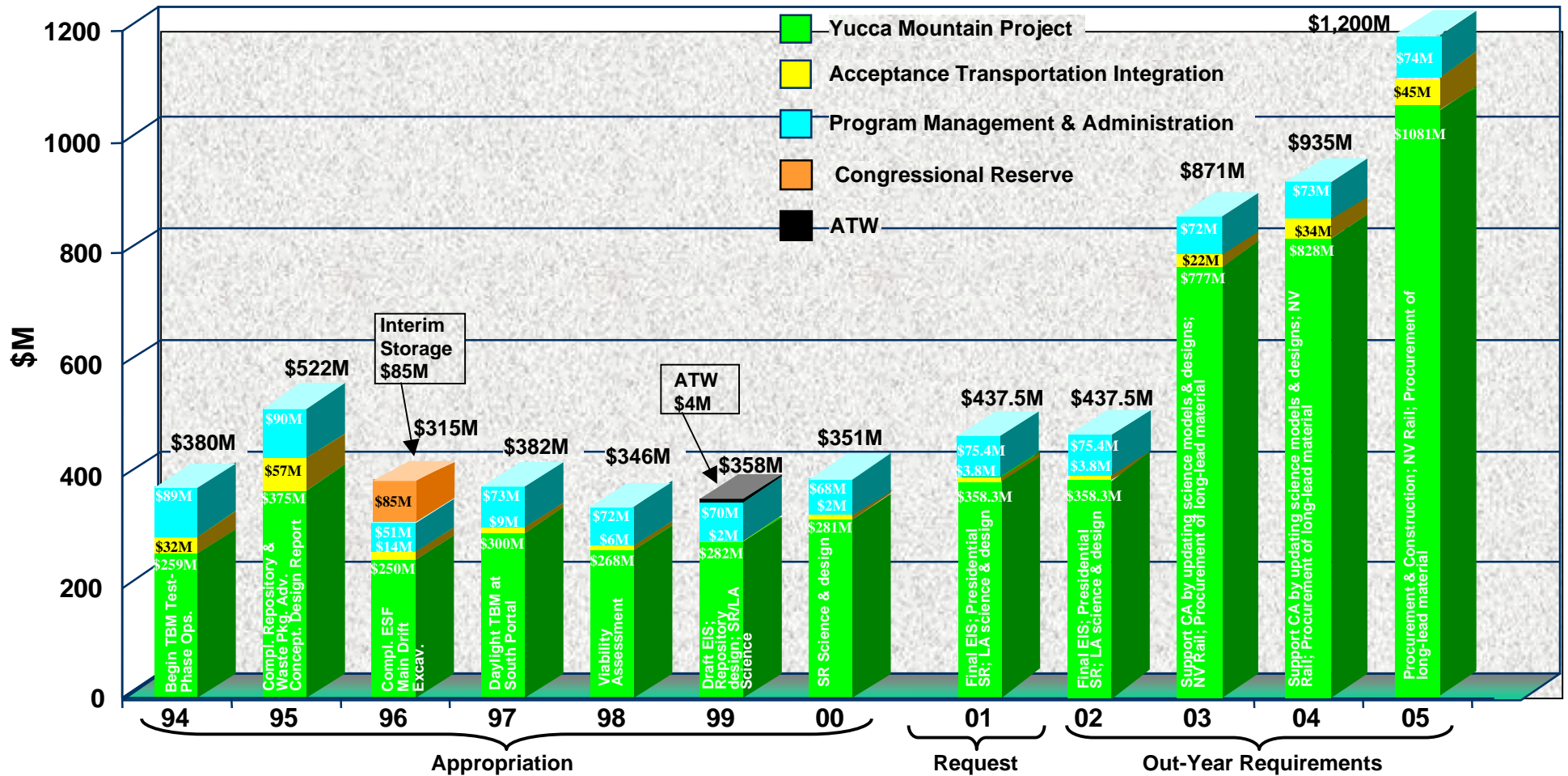


	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	Total FY94-00	FY 2001
Budget Request	380,000	532,230	630,000	400,028	380,000	380,000	409,000	3,111,258	437,500
Enacted	380,000	522,230	315,000	382,000	346,000	357,465	351,175	2,653,870	---
% of Change	0	-1.88	-50.00	-4.51	-8.95	-5.93	-14.14	-14.70	
Congressional Reserve			85,000						

FY00 BUDGET DISTRIBUTION

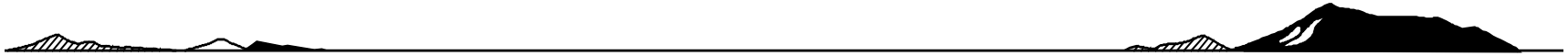
Contractor	TOTAL
SUBTOTAL M&O*	175,972
LABS*	44,035
FEE*	12,000
USGS	13,637
Other Prime Contractors**	34,150
Financial & Technical Assistance**	23,972
FEDERAL	22,631
Miscellaneous	24,778
TOTAL FY00	351,175
*Total M&O = \$232,007	
**More details available in Program Business Plan	

OCRWM Funding Profile and Out-Year Requirements



**Waste Acceptance,
Storage and
Transportation Project**

**Yucca
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Office**

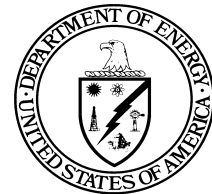


Status of Program

**Presented to:
Potential Proposers**

**Presented by:
William J. Boyle
Senior Advisor for Regulatory Policy
U.S. Department of Energy**

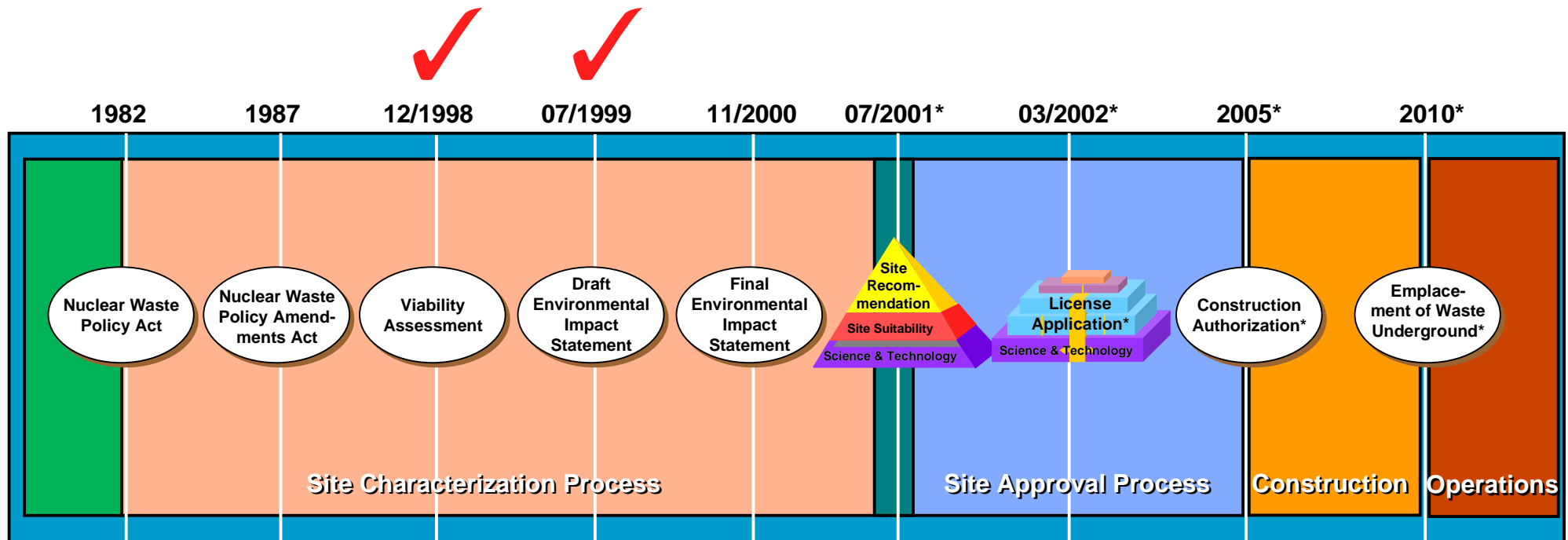
**Las Vegas, NV
February 17, 2000**



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

- Near Term Schedule
- Technical Basis Documents
- Integrated Safety Management Systems
- Quality Assurance

Decision Process Leading to Major Repository Milestones



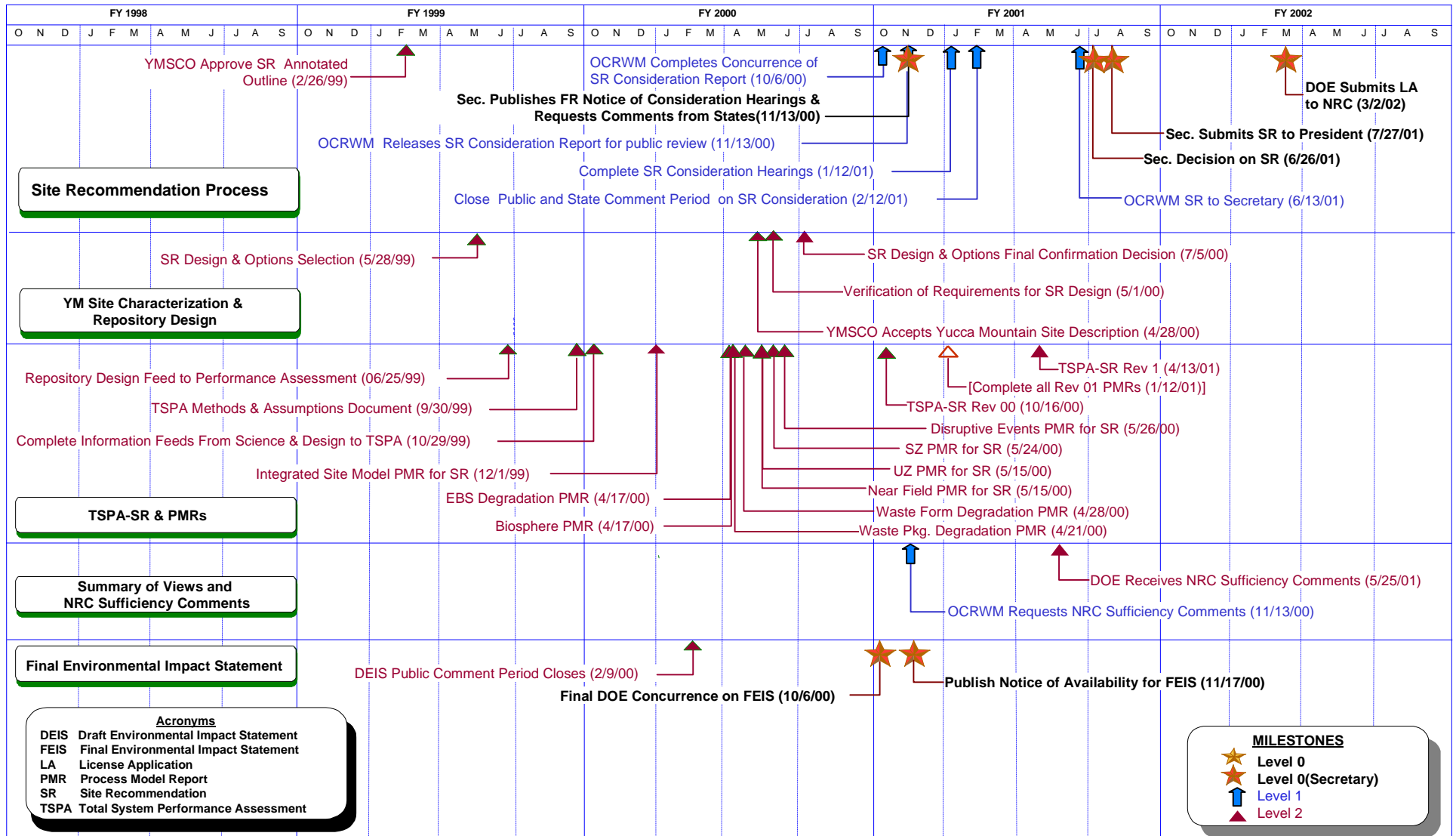
*If site is approved and budget supports schedule.

ARPSLRD1bt.ppt

	FY98	FY99	FY00
Requested Budget	380	380	409
Appropriation	346	354	352.5

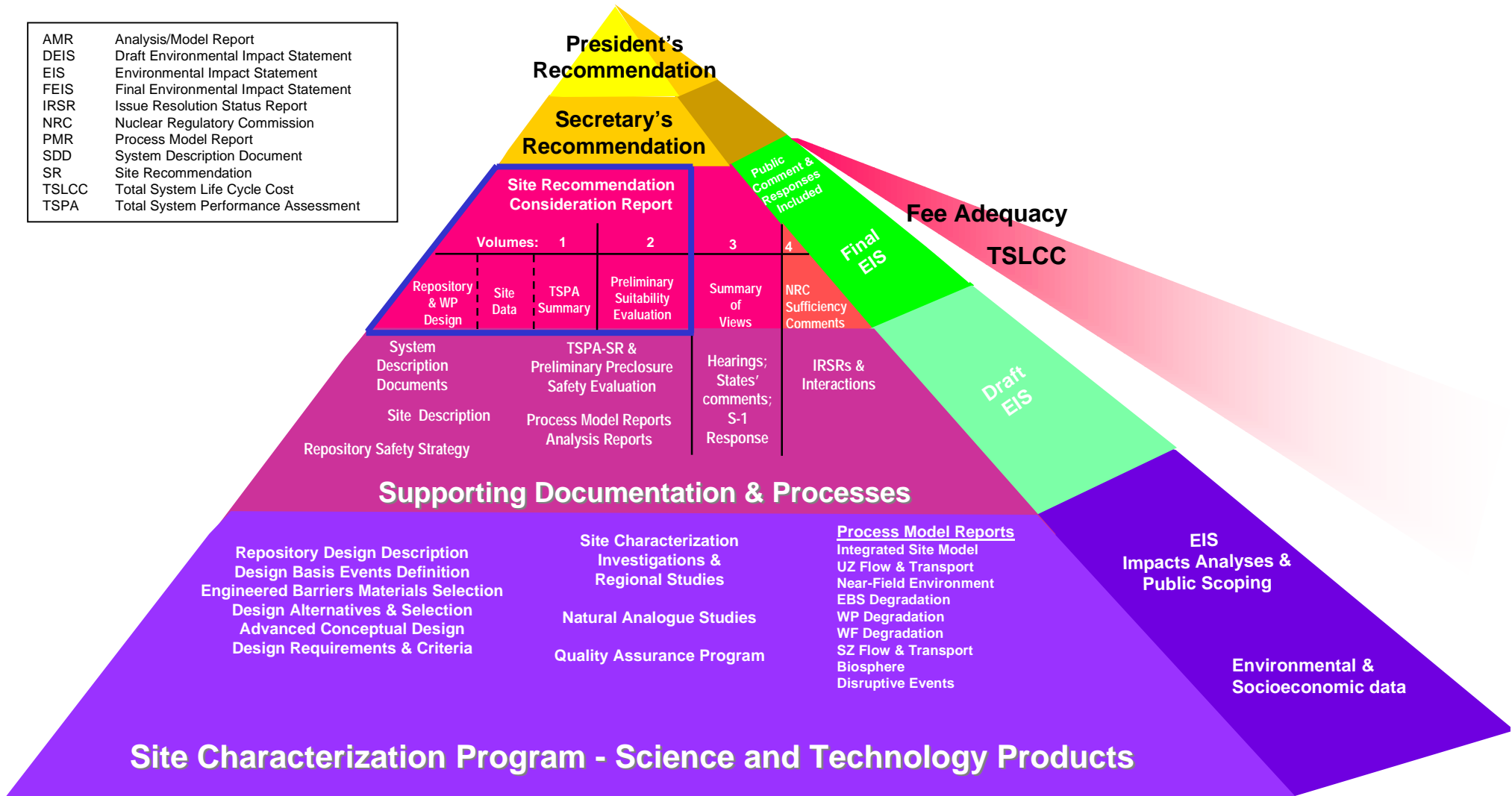
Total Project Costs Through Sep 99 = \$3.2 billion

SITE RECOMMENDATION SCHEDULE



Site Recommendation Structure

AMR	Analysis/Model Report
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
IRSR	Issue Resolution Status Report
NRC	Nuclear Regulatory Commission
PMR	Process Model Report
SDD	System Description Document
SR	Site Recommendation
TSLCC	Total System Life Cycle Cost
TSPA	Total System Performance Assessment



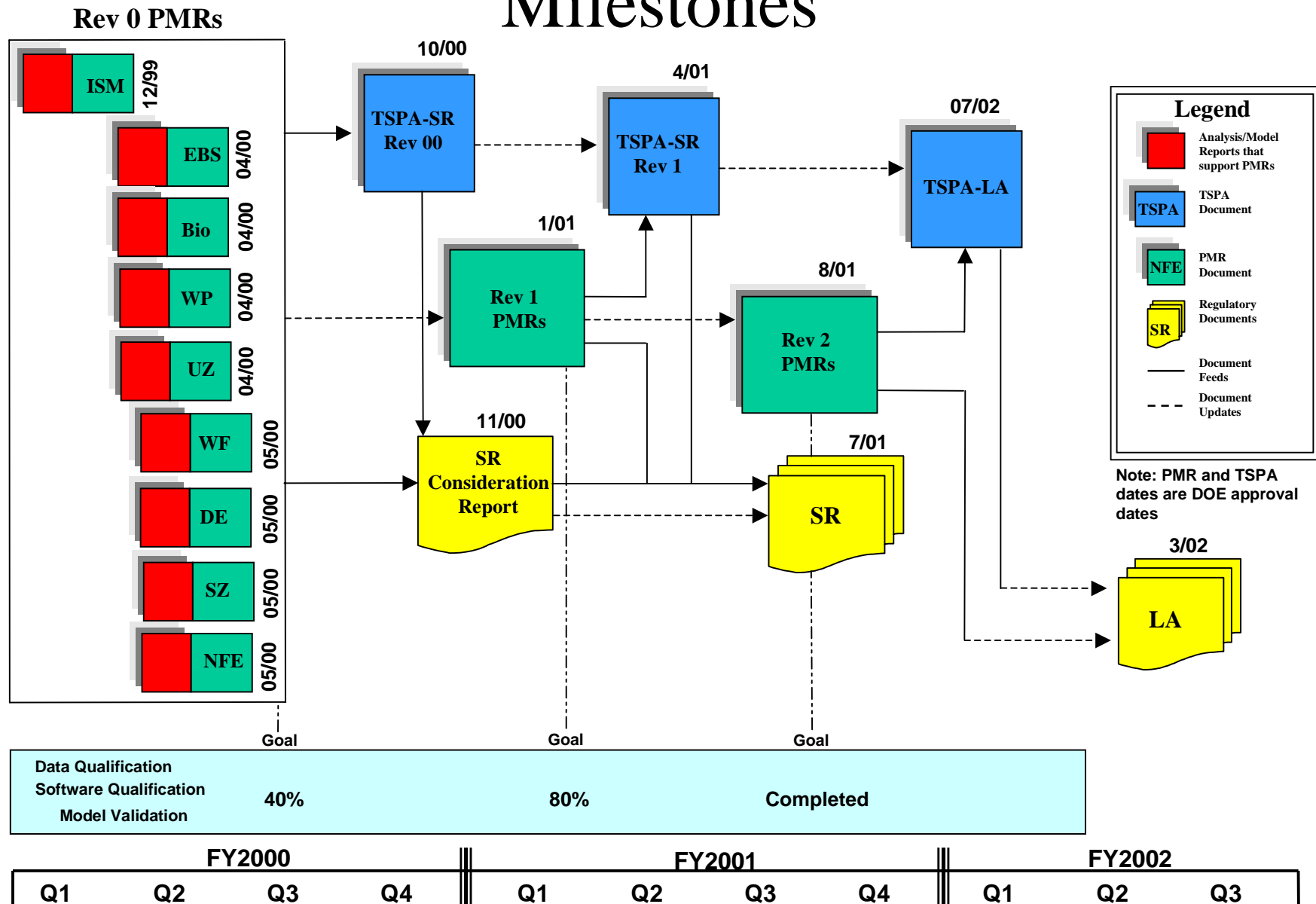
Technical Basis Documents

- The technical basis for the Site Recommendation and License Application will be developed through an integrated series of documents:
 - Analysis and Modeling Reports (AMRs) document the analyses and models of individual features processes and events using site characterization data sets
 - System Description Documents (SDDs) use engineering analyses to document aspects of the surface, subsurface, and waste package designs
 - Process Model Reports (PMRs) synthesize and integrate groups of AMRs to describe and model general categories of features processes and events important to postclosure repository performance (e.g., unsaturated-zone flow and transport)
 - Total System Performance Assessment (TSPA) uses abstracted model results in specialized AMRs to analyze the potential behavior of the repository system as a whole

Additional Technical Basis Documents

- In addition to the AMRs, PMRs, and TSPA, which focus primarily on postclosure safety, other key technical documents that are essential to SR and LA include:
 - Preliminary Preclosure Safety Evaluation, an analysis of preclosure radiological safety for an operational repository applying preliminary design descriptions and requirements for SR that will lead to an Integrated Safety Analysis for the LA
 - Yucca Mountain Site Description, a compendium of geologic and hydrologic information acquired during site characterization, including chapters on natural resource potential and natural analogue studies
 - Repository Safety Strategy, a general plan for the identification and prioritization of the principal factors of a repository system most important to safe performance, to formulate a “safety case” wherein DOE will present the essential aspects of the performance of a repository system

Linkage of Major Programmatic SR/LA Milestones



Process Model Reports

- The PMRs reflect the general sequence of events following the movement of water through the repository system
- Approximately 122 AMRs will be integrated into 9 PMRs:
 - Integrated Site Model (ISM)
 - Unsaturated-Zone Flow and Transport (UZ)
 - Engineered Barrier System Degradation (EBS)
 - Waste Package Degradation (WP)
 - Waste Form Degradation (WF)
 - Near-Field Environment Evolution (NFE)
 - Saturated-Zone Flow and Transport (SZ)
 - Biosphere (Bio)
 - Disruptive Events (DE)

SR Analytical Document Status

- As of 1/31/00, 26 of 122 AMRs (representing the ISM, UZ, EBS, WP, Bio, and DE PMRs) and 1 of 9 PMRs (ISM) have been completed
- All PMRs (Rev 00) for the SR are scheduled for completion by 4/28/00
 - All AMRs will be completed when the PMRs are completed
- The 25 System Description Documents (SDDs) for SR are scheduled for completion by 6/28/00
- TSPA-SR Rev 00 nominal case analysis is scheduled for completion by 7/14/00
 - Additional sensitivity studies are scheduled for completion by 8/28/00
- The Site Recommendation Consideration Report (SRCR) is scheduled for public release on 11/13/00

Future Analytical Document Planning

- After completion of the Rev 00 documents to support the SRCR, AMRs and PMRs may be updated, as necessary, to support an SR decision in 6/01 and an LA in 3/02
 - Updates could include information such as additional design detail, new scientific information, and responses to public comments
- SDDs will be updated and expanded to incorporate greater design detail and additional engineering analyses for the LA
- Another complete iteration of the TSPA (TSPA-LA) is planned to support the submittal of the LA
 - Additional TSPA analyses and sensitivity studies may be performed to support the SR decision, Environmental Impact Statement, and design evaluations

Introduction

Why is DOE Doing Integrated Safety Management Systems (ISMS)?

- It's the right thing to do
- It's Policy . . .
“It is Department Policy that Safety Management Systems . . . Shall be used to systematically integrate safety into management and work practices at all levels”

DOE P450.4

Objective ISMS

- Systematically integrate safety considerations into management and work practices at all levels to accomplish missions while protecting the public, the worker, and the environment

Stated simply, Do Work Safely

Where Are We Today?

ISMS

- “Standards/Requirement Identification Document” and Gap Analysis
- ISM Internal Verification by end of April
- ISM External Verification by end of July

Web Sites

ISMS

- DOE Integrated Safety Management Program:
<http://tis-nt.eh.doe.gov/ism>
- DOE Directives:
<http://www.explorer.doe.gov/>
- DOE Technical Standards
<http://tis.eh.doe.gov/techstds/standard/stanprog.html>
- DOE 1999 OCRWM Safety Management Function, Responsibilities, and Authorities Manual
<http://tis-nt.eh.doe.gov/ism/frams/framfin.pdf>

OCRWM QA PROGRAM

- Centralized QA Program
 - Reviewed and accepted by the NRC
- Quality Engineering and Quality Control functions will be transitioned to the Contractor soon after award
- One QA document (QARD) establishes a single and standard set of requirements for all program participants
 - Requires each program participant to develop a matrix identifying QARD requirements applicability based on mission and scope of work
 - Establishes OCRWM (DOE) as the focal point of QA program document approvals and interpretation of QA requirements
 - Allows flexibility for change based on any new promulgated requirements from the regulator

Quality Challenges

Four Major open Corrective Action Requests:

- Data Defensibility
- Software
- Models
- Data Traceability

CAR LVMO-98-C-002 (Data Defensibility)

- Data listed as qualified in the Technical Database are suspect due to vendor qualification inadequacies

STATUS: Remains open pending
 significant data reverification
 effort

CAR LVMO-98-C-006 (Software)

- Software development and configuration systems and processes are determined to be ineffective

STATUS: DOE determined corrective actions to be ineffective

LVMO-98-C-010 (Models)

- Lack of procedural control for model development and use

STATUS: Remains open pending
resolution of model validation
concerns identified during the
recent audits

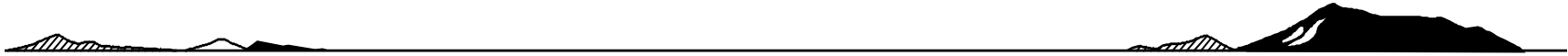
CAR-LVMO-99-C-001 (Data Traceability)

- Lack of traceability of data from technical reports to the Technical Data Management System

STATUS: Remains open pending response to resolve process inconsistencies and implementation issues

**Waste Acceptance,
Storage and
Transportation Project**

**Yucca Mountain Site
Characterization Office**



Draft Request for Proposal

**Presented to:
Potential Proposers**

**Presented by:
Jerri J. Adams
Director, Project Support
U.S. Department of Energy**

**Las Vegas, NV
February 17, 2000**



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

Specific Characteristics

- **This will be a Performance-Based Management and Operating Contract**
- **Does Not Have DEAR 970.5204-77 Workforce Restructuring under Section 3161**

Sections to be Discussed

Section

Title

- | | |
|-----------|---|
| E: | Inspection and Acceptance |
| H: | Special Contract Requirements |
| L: | Instructions, Conditions and Notices
to Offerors |
| M: | Evaluation Factors for Award |

Section E

E.3 FAR 52.246-11 - Higher Level Contract Quality Requirement (Government Specification)

Section H

H.4: Small Business Subcontracting Plan

H.17: Travel Restrictions

H.26: Human Resources

H.46: Litigation Management Plan

Section L

- **Evaluations are proposed to be done through written proposals and oral interviews**
- **Oral interviews are to be timed and we will adhere to the schedules**
- **We are using electronic media as distribution media**
- **Intention to Submit an offer is due no later than 14 days prior to proposal due date**

Section M

• Management and Integration	350
– Management and Integration Approach	(200)
– ES&H Program	(100)
– Business Management Approach	(50)
• Technical Approach	350
– Technical Approach	(200)
– Quality Assurance	(150)
• Key Personnel and Resumes	150
– Interviews with Key Personnel	(100)
– Key Personnel Resumes	(50)
• Transition Plan	100
• Experience and Past Performance	<u>50</u>
	1,000

Cost Evaluation

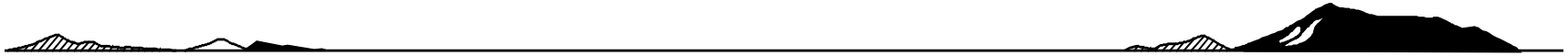
- **Limited cost data is requested**
- **It will not be “point scored”**
- **It is significantly less important than the Management, Integration and Technical evaluation Factors**

Qualification Factor

- Utilities that are in litigation with the Department under the Standard Contract are not eligible to compete as a prime contractor under this RFP. Although such a utility would not be eligible to compete as a prime contractor, it is possible that a utility in litigation with DOE could still be a member of a team. However, the proposal should address how the team intends to mitigate any Organizational Conflict of Interest problems to ensure, among other things, that information obtained in performing the contract would not be used for any other purposes, such as in the Standard Contract litigation. Such mitigation could include the creation of a separate corporate entity to perform the contract or a comparable mechanism to insure separation between the group or segment involved in contract performance and the rest of the utility. In any event, OCI issues would be addressed on a case-by-case basis, taking into account the conflict involved and whether or not the proposed mitigation plan adequately addresses the potential problems posed by the conflict.

**Waste Acceptance,
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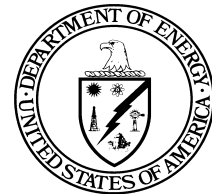


Statement of Work

**Presented to:
Potential Proposers**

**Presented by:
Richard L. Craun
Senior Policy Advisor, Engineering
U.S. Department of Energy**

**Las Vegas, NV
February 17, 2000**



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

Statement of Work Provides

- **Background Information**
- **Management Guidelines**
- **Contractor Guidelines**
- **A Functional description of the work to be accomplished during this contract**
- **Special Focus Topics have been identified for this briefing from the SOW**

Background Information

- **Nuclear Waste Policy Act of 1982, as amended, established the Office of Civilian Radioactive Waste Management within DOE**
- **OCRWM is responsible for the development of nation's high level waste disposal system**

Background Information

(continued)

- **OCRWM Director reports to the Secretary of Energy**
- **OCRWM has two business centers:**
 - **The Yucca Mountain Site Characterization Office Project in Las Vegas, Nevada**
 - **The Waste Acceptance, Storage and Transportation Project in Washington D.C.**

Background Information

(continued)

The Program's mission, as set out in the NWPA, is to implement the Federal policy for permanent disposal of spent nuclear fuel and high-level radioactive waste, in order to protect the public health and the environment. The program provides leadership in developing and implementing strategies to accomplish this mission that assure public and worker health and safety, protect the environment, merit public confidence, and are economically viable.

Management Guidelines

DOE is responsible for:

- **All programmatic, policy and funding decisions**
- **Establishing Program goals and objectives**
- **Monitoring and measuring contractor performance**
- **Performing all inherently federal functions**

Management Guidelines

(continued)

- **DOE will be the licensee**
- **DOE is responsible for all NRC interaction**
- **DOE will issue annual planning guidance**
- **DOE is responsible for conduct of audits and surveillance**
- **DOE has the right to intervene**

Contractor Guidelines

Contractor is responsible for:

- **Planning, Integrating & Managing the entire scope of work**
- **Defining the National Laboratory work scope**
- **Note that the contract work activities for FY-2001 will be defined before the execution of this contract**

Contractor Guidelines (continued)

- **Contractor is to define the**
 - **Management structure**
 - **Structure to integrate the technical work scope**
 - **Subcontracting structure**
- **Specifying the subcontracting approach,
i.e., fixed price, performance based,
incentive fee, etc.**

Description of Work

- **Focuses on:**
 - **What is required NOT how to perform**
 - **Plan, Integrate and Manage the key milestones**
- **Provides an expanded discussion of select Program milestones**
 - **Site Recommendation, License Application and Construction and Receive/Possess**
- **Addresses the major Program Functions**

Program Milestones / Funding

- **Identified the major activities or milestones that when completed on time would ensure that the Program remains on schedule**
- **Identified two to four milestones per year to support the performance fee concept**
- **Identified the planned funding profile**

Contract Information

- **Contract period, including transition, from November 15, 2000 thru February 11, 2011**
- **Transition term is from November 15, 2000 thru February 11, 2001**
- **Initial performance period is from February 12, 2001 thru February 11, 2006**
- **Contract value is \$3.1 billion for the initial contract period, excluding transition**

Special Focus Topics

Major Milestone Focus

- Secretarial decision whether to recommend site**
- DOE submits license application to NRC**
- Receive NRC Construction Authorization**
- Update license application to NRC**
- Acquire license to receive and possess waste**

Contractor shall provide support necessary for successful milestone completion

National Laboratories

- **Fiscal year 2001 National Laboratory work scope will have been defined and approved**
- **Continued use of the National Laboratories**
 - **Shall be at the discretion of the Contractor**
 - **Shall be conducted under a separate contractual arrangement between the Contractor and the National Laboratories**
 - **Shall be based on Program needs**

Nevada Operations Office

- **Is the landlord of the site**
 - **Currently provides infrastructure, security, logistical support, fire protection, emergency medical services, power, etc.**
- **These services may be contracted for separately based upon best overall interest of the government**
- **National Nuclear Security Administration is forming**

Waste Acceptance & Transportation

- **The contractor shall integrate the Waste Acceptance and Transportation functions**
- **As defined in this SOW, the Contractor may be assigned one or both of these functions**
- **OCRWM has developed an approach to accept and transport spent nuclear fuel**
 - **Draft RFP released September 1998**
 - **Final RFP August 2001**

Quality Engineering and Quality Control

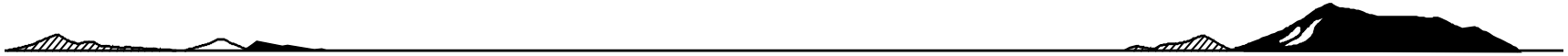
- **Quality Assurance Technical Support Services contract expires April 2001**
- **Quality Engineering and Quality Control functions will at that time transfer to the M&O contractor**
- **QA Program management, independent audits and surveillance and trending shall be retained by OCRWM**

Contract Transition

- **The Offeror's transition plan is to address how to accomplish the transition without impacting the Program schedule**
- **Contractor is to define the basis and rationale for the proposed transition plan**
- **Potential for an award earlier than November 15, 2000**

**Waste Acceptance,
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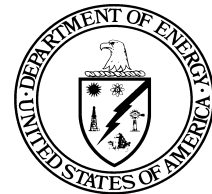


Proposed Fee Concept

**Presented to:
Potential Proposers**

**Presented by:
Jerri J. Adams
Director, Project Support
U.S. Department of Energy**

**Las Vegas, NV
February 17, 2000**



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

Proposed Fee Concept

- **Fee Pool is for the 5-Year Period (2/12/01-2/11/06)**
- **It is 100% Performance Based**
- **Deductions may be made from fee earned for not meeting Functional Standards**

Proposed Fee Concept (continued)

Primary Milestones are:

- | | |
|---|---------------|
| 1) Issue TSPA for Site Recommendation, Rev 01 | April 2001 |
| 2) DOE Issuance of Site Recommendation to President | July 2001 |
| 3) Final RFP for Waste Acceptance & Transportation Service* | August 2001 |
| 4) TSPA for License Application | November 2001 |
| 5) DOE Submits License Application to NRC | March 2002 |
| 6) Fabrication Procurement and Construction Design Requirements | June 2002 |
| 7) Finish Design of Subsurface Waste Handling Equipment | April 2003 |
| 8) Complete Waste Package System Prototype Fabrication | January 2004 |
| 9) Subsurface Prototype Waste Handling Equipment | April 2004 |
| 10) Complete Fabrication, Procurement and Construction Design | March 2005 |
| 11) Receive NRC Construction Authorization | March 2005 |
| 12) Waste Acceptance & Transportation Services* (Phase B) | March 2005 |

Attributes of Fee in Fee Pool

- **Amount of fee assigned to a milestone based on complexity and program importance**
- **Fee earnings based on accomplishing milestones within scope, schedule and meeting specified acceptance criteria**
- **Fee provisionally paid as earned**
- **Can move forward milestones and fee from efficiency savings**
- **Provides ability to earn additional fee**

- **If schedules not met, fee earned is reduced based upon:**
 - a) **whether level 3 milestone or impacts to level 1 or 2 milestone impacted**
 - b) **number of days late**

Functional Standards

- **Conduct activities at levels consistent with industry standards, DOE Orders, and contract requirements**
- **During transition period will define maximum fee that may be lost for not meeting Functional Standards**
- **Functional Standards will be established and evaluated on an annual basis**
- **Fee deduction will be made from earnings**

Changes

- **If assumptions change which impact schedules or budgets**
- **If funding levels vary plus or minus 10%**
- **Changes beyond control of contractor such as litigation, lawsuits, legislation, etc.**